



*One Design*

For any question you may have on tuning your Interclub for speed, contact our Interclub expert listed below:

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## **Interclub Tuning Guide**

# NORTH SAILS

## Interclub Tuning Guide (RadIC & Benj Design)

Here is an overview of the current and future tuning recommended for the Interclub Dinghy to the current standard model North Sails RadIC. These principals have been used to win the Nationals and Wharf Rat Challenge in 2007, 2008, and 2009 not to mention lots of regattas, races and fleet championships.

### MAST STEP

The mast step is measured on the diagonal from T1 at the center of the deck and transom to the back of the mast in the step. The Vanguard style keelson and mast step height is the standard and used here.

Baxter: 66 / 110.25 inches

Benj: 50 / 110.50 inches (add 0.25 inches due to high keelson on 50) so use 110.75 inches

Dowd: 81 / 109.75 inches (very fast in light winds)

Max forward / 111 inches

The step should be adjusted for conditions. Aft in light air and forward in heavy.

### MAST PARTNERS

The Class Rules state the aft side of the mast partner from T1 must be between 8 feet 10 inches and 9 feet, or between 96 and 98 inches. The aft side of the mast partner should be set up as far back as legal, therefore at 96 inches from T1.

The mast is adjusted in the partners by blocks. One inch of adjustment is allowed. There should be 8 mast blocks, each of these should be 1/8 inch thick.

In light air all blocks are used behind the mast. In heavy air four blocks are used behind and four in front.

The mast partner rule was the subject of typo's and discrepancies in the Class Rules. Some documents say the minimum from T1 is 8 feet 10.5 inches but these documents are incorrect. You can rely on 8 feet 10 inches to be correct.

The mast partners should have the custom rectangular plastic fitting of the Benj design.

### SHROUD TENSION

The shrouds should be adjusted by Stamaster turnbuckles to make the mast straight side to side. In light air the shrouds should be almost slack. In heavy air the shrouds should be very tight. Never the less the leeward shroud will still go slack.

### FORESTAY AND RAKE

Once the step and partners are set up then the forestay and shrouds control the rake. The rake is measured by locking the main halyard in the halyard lock with the tape measure shackled as though it were the head of the mainsail. Measure to T1. For light air the rake should be reduced to 19 feet 0 inches, or less rake (greater measurement). 19 feet and 1/2 inch seems to be a fast setting. Some boats are trying

19 feet 3 inches or even 19 feet 4 inches (very little rake, mast is nearly vertical, but powerful!).

The rake should be measured with the headstay on, and off. In light air since the headstay is slack the headstay will not affect the rake measurement.

In heavy air the rake should be increased to 18 feet 5 inches. This can be accomplished by moving the mast step, the partner mast blocks, and tightening the shrouds. The rake with the headstay pulled on to its sailing position should be 18 feet 8 inches.

### CENTERBOARD

The centerboard must be positioned carefully with this tuning system. First locate the pin. These dimensions may help:

T1 to center of pin on the diagonal – 79.25 inches.

Height of center of pin above inner surface of hull – 1 and 7/8 inches.

Distance of center of pin aft of intersection trunk bottom forward corner and inner surface of hull – 4 inches. These two measurements are from Baxter's Vanguard #66.

T2 (center of transom and bottom) to absolute tip of the centerboard when maximum raked forward – 100.5 inches.

T2 to leading edge of centerboard at hull

bottom when maximum raked forward – 80 and 1/8 inch.

T2 to absolute tip of the centerboard when it is perpendicular – 89 inches.

T2 to leading edge of centerboard at hull bottom when perpendicular – 79 and 1/8 inch (when the board goes from perpendicular to max forward rake this dimension increases by one inch).

The centerboard should be positioned at maximum forward rake in flat water and medium winds, but not when tacking or accelerating to start from slow speeds. Therefore it must be raised for tacks, and slow speed starts, and then lowered again once at full speed (by the crew). The centerboard will stall easily in this tip forward position and must be raised immediately when stalled and in waves.

In heavy winds the centerboard should be perpendicular.

In light winds the centerboard should be half way between perpendicular and maximum forward.

### OUTHHAUL AND LUFF TELLTALES

The RadIC responds well to a loose outhaul in light winds. The distance from the side of the boom to the center of the foot should be more than a hand spread or 8 inches. In heavy winds the outhaul should be quite tight.

The RadIC, and the Benj design Interclub sail before it, both exhibit a tendency for the bottom leeward telltale to stall in light air. During the development of the RadIC, and before that the RadIC06 we had the goal of eliminating or reducing this feature. The RadIC is the latest version of a fully re-faired Benj design. The RADIC06 is fuller in the bottom and flatter in the top than the Benj design, which is no longer produced. The RadIC is another step in that direction.

If you are seeing your bottom leeward telltale stall try easing the outhaul, increasing the forestay tension, dropping the travelling car lower, reduce bend in the mast, and or sheet less hard.

### CUNNINGHAM

The RadIC likes a loose cunningham and wrinkles in the front of the sail in light winds and flat water especially when new. In heavy winds use the cunningham to remove all the wrinkles along the luff. Be sure to ease the cunningham in lulls and slack completely downwind.

### VANG

The RadIC when set on a Kenyon mast can use a hard vang to advantage in heavy winds. The Zephyr mast can not withstand as much vang tension but some can be used. In light winds the vang should simply keep the boom from lifting while tacking.

### TRAVELER

In heavy winds the traveler should be all the way to leeward. In light winds and flat water the traveler can be as high as 7.5 inches up however 4 or 5 inches is a more normal setting

### MEDIUM WINDS

Many of the techniques above apply to light or heavy winds. In medium winds a compromise will have to be found among the variables, tending toward the light wind settings until fully hiked.

## Contact North Sails

For tuning information and complete details on how to setup your Interclub sails contact the North Interclub experts listed on the cover of this guide.

## Good Sailing!

### NORTH SAILS ONE DESIGN QUALITY CONTROL CHECK

#### Interclub

MAINSAIL	
Corners	
Cunningham	
Numbers	
Battens	
Leech Telltales	
Luff Telltales	
Insignia	
North Logo	
Bag	

Checked by: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_